Questions and Answers about West Nile Virus (WNV)

Q. What is the West Nile virus (WNV)?

A. WNV is a virus that was first discovered in Uganda in the 1930's. It is very similar to another virus that is present in the United States, St. Louis Encephalitis virus.

Q. Where did West Nile virus come from?

A. WNV has been commonly found in humans and birds and other vertebrates in Africa, Eastern Europe, West Asia, and the Middle East, but until 1999 had not been documented in the Western Hemisphere.

Q. How long has West Nile virus been in the U.S.?

A. Scientists believe the virus has been in the eastern U.S. since the early summer of 1999, possibly longer.

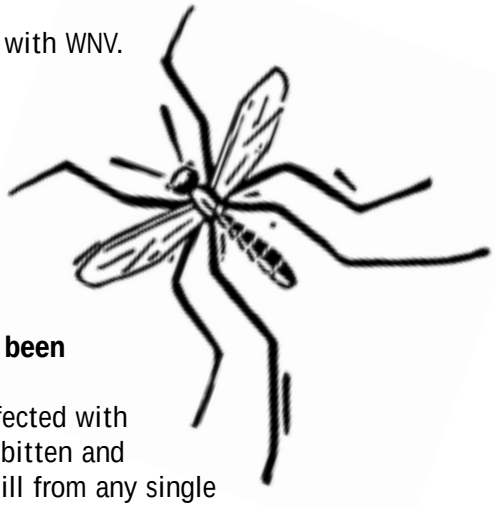
Q. Is the disease seasonal in its occurrence?

A. Since the disease is spread by mosquitoes, it occurs during seasons when mosquitoes are active, typically late spring through early fall. In very warm climates, it is possible that WNV could be transmitted year round.

Transmission of West Nile Virus

Q. How do people get West Nile encephalitis?

A. Most commonly, people become infected by the bite of a mosquito infected with WNV.



Q. What is the basic transmission cycle?

A. Mosquitoes become infected when they feed on infected birds, which circulate the virus in their blood. Infected mosquitoes can then transmit WNV to humans and animals while biting to take blood. During blood feeding, the virus may be injected into the animal or human, where it may multiply, possibly causing illness.

Q. If I live in an area where birds or mosquitoes with West Nile virus have been reported and a mosquito bites me, am I likely to get sick?

A. No. Even in areas where the virus is circulating, very few mosquitoes are infected with the virus. Even if the mosquito is infected, less than 1% of people who get bitten and become infected will get severely ill. The chances you will become severely ill from any single mosquito bite are extremely small.

Q. Can you get West Nile encephalitis from another person?

A. West Nile encephalitis is NOT transmitted from person-to-person through casual contact. In 2002, WNV was transmitted to a small number of people through transfusions, transplants, and through breastmilk.

Q. Can you get West Nile virus directly from birds?

A. Persons should avoid bare-handed contact when handling *any* dead animals. Use gloves and double plastic bags to handle any dead bird.

Q. How does West Nile virus actually cause severe illness and death in humans?

A. Following transmission by an infected mosquito, WNV can multiply in the person's blood system and cross the blood-brain barrier to reach the brain. The virus can interfere with normal central nervous system functioning and cause inflammation of brain tissue.

Q. What proportion of people with severe illness due to West Nile virus die?

A. Less than 1% of persons infected with West Nile virus will develop severe illness. Among those who have developed a severe illness with WNV, between 3% and 15% have died. Most of the deaths have occurred among the elderly.

Prevention of West Nile Virus

Q. What can be done to prevent outbreaks of West Nile virus?

A. Everyone has a role to play in eliminating standing water in which mosquitoes may breed. Once virus activity is detected in the area, residents should increase their efforts to reduce contact with mosquitoes.

Q. Is there a vaccine against West Nile encephalitis?

A. No, but several companies are working towards developing a vaccine. There is a vaccine available for horses, but its effectiveness is not fully known at the present time.

Q. What can I do to reduce my risk of becoming infected with West Nile virus?

A.

- Stay indoors at dawn, dusk, and in the early evening.
- Wear long-sleeved shirts and long pants whenever you are outdoors.
- Apply insect repellent sparingly to exposed skin. An effective repellent for adults will contain 35% DEET (N,N-diethyl-meta-toluamide), with concentrations of 10% or less for children aged 2-12. Repellents may irritate the eyes and mouth, so avoid applying repellent to the hands of children.
- *Whenever you use an insecticide or insect repellent, be sure to read and follow the manufacturer's DIRECTIONS FOR USE, as printed on the product.*
- Install or repair window and door screens so that mosquitoes cannot get indoors.

Symptoms of West Nile Virus

Q. Who is at risk for getting West Nile encephalitis?

A. All residents of areas where virus activity has been identified are at risk of getting West Nile encephalitis. Persons over 50 years of age and those with weakened immune systems have the highest risk of severe disease.

Q. What are the symptoms of West Nile encephalitis?

A. Most infections are mild, and symptoms include fever, headache, and body aches, occasionally with skin rash and swollen lymph glands. More severe infection may be marked by headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, paralysis, and, rarely, death.

Q. What's the incubation period in humans (time from infection to onset of symptoms) for West Nile encephalitis?

A. Usually 3 to 15 days.

West Nile Virus and Birds

Q. Do birds infected with West Nile virus die or become ill?

A. In the 1999 New York area epidemic, there was a large die-off of American crows. WNV infection has been identified in dozens of species of birds in the United States. Most of these birds were identified through reporting of dead birds by the public.

Q. How can I report a sighting of dead bird(s) in my area?

A. As part of their West Nile virus surveillance efforts, the Orange County Vector Control District is selectively testing birds that may have been dead for less than 24 hours. To contact a Vector Control representative, call (714) 971-2421. The State of California has also established a toll-free telephone number for the public to report birds that have been dead for less than 24 hours. That number is 1-877-WNV-BIRD.

For more information on West Nile Virus, check these helpful websites:

- The Centers for Disease Control and Prevention WNV page
  http://www.cdc.gov/ncidod/dvbid/westnile/index.htm
- The State of California's WNV web site
  http://www.westnile.ca.gov/